

heating said reaction chamber for a sufficient time to provide substantially complete pyrolysis,

said heating occurring in at least a first, second and third phases and fuel input is adjusted to take advantage of the exothermic nature of the reaction;

said method occurring while maintaining a vacuum in said reaction chamber and yielding reaction products comprising a solid carbonaceous residue, a liquid hydrocarbon product and a combustible gas.

12. The method of Claim 1, wherein said first, second and third phase occur sequentially over time.

13. The method of Claim 1, wherein said first, second and third phase occur sequentially over space, as said hydrocarbon material moves through said reaction chamber.

15. The method of Claim 1, wherein said vacuum is maintained at pressure of between about 2 inches to 16 inches mercury.

16. (Amended) A low energy method of pyrolysis of hydrocarbon material comprising:

providing said hydrocarbon material;

loading said hydrocarbon material into a reaction chamber;

heating said reaction chamber, said heating occurring in at least a first, a second and a third phase; and

adjusting input of fuel to take advantage of the exothermic nature of the reaction, said method occurring while maintaining a vacuum in said reaction chamber and yielding reaction products comprising a carbonaceous solid residue, a liquid hydrocarbon product and a combustible gas.

REMARKS

The Office Action states that the oath or declaration is defective because it does not identify the city and state or foreign country of residence of each inventor. Applicant respectfully submits that the declaration and application data sheet previously submitted contain this information; in fact, this information is found on the official filing receipt that was received from the United States Patent and Trademark Office for this application. A copy of the declaration and application data sheet previously submitted are enclosed with this response.